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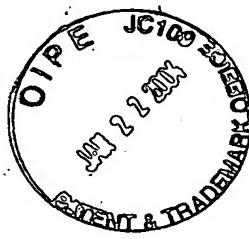
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EIG



1001 GTCAAACACTA CTGTTGCCTT AAGCTGCACC TGCCGAGGCA GCGGAAACCT ACAGGACGAG TGTGAACAGC TGGAAAGGTC CTTCTCCAG AACCCCTGCC
 CAGTTGTGAT GACAACGGAA TTGCGACGGCT ACGGTCCCGT CGCCGTTGGA TGTCCTGCTC ACACTTGTCG ACCTTTCAG GAAGAGGGTC TTGGGACGG
 305 ValAsnThr hrValAlaLe userCysThr CysArgGlys erglyAsnLe uGlnAspGlu CysGluGlnL euGluArgSe rPheSerGln AsnProCysLeu

 1101 TCGTGGGG CATTGAGCT AGATGGGT TCCACAGACA GCTCTTCCTC CAGGACTGGG CAGACTCTAC TTTTTCAGTG GTCCAGGAGC AGAACAGCAA
 AGCACCTCCG GTAACGTCGA TTCTACGCAA AGGTGTCGT CGAGAAGAGGG GTCTGAGATG AAAAGTCAC CACGTCGTC TCTTGTGTCGTT
 339 ValGluAl alleleAlaLysMetArgP heHisArgG1 nleuPheSer GlnAspTrpA 1aAspSerTh rPheSerVal ValGlnGlnG InAsnSerAsn

 1201 CCCTGCTCG AGACTGCAGC CCAGGCTAC CATTCTTCTC TTCTCCATTC TTCCCTTGAT TCTGCTGAG ACCCTCTGGT AGCTGGGCTT CCTCAGGGTC
 GGGACGAGC TCTGACGTCG GGTCCGATGG GAAAGGTAGG AAGGGAAAGA AGACGACGTC TGGGAGACCA TCGACCCGAA GGAGTCCAG
 372 ProAlaLeu ArgLeuGlnP roArgLeuPrr oIleLeuSer PheSerIleL euProLeuIleLeuGln ThrLeuTrp

 1301 CCTTGTCTC TCCACACAC CCAGACTGAT TTGCAAGCCTG TGGTGGGAGA GAACTGCCA GCCTGTGAA GAAGACGCCAG CGTGCTACAC AGCAACCCGG
 GAAACAGGGAG AGGTGGTGTG GGTCTGACTA AACGTCGGAC ACCACCCCTCTT CTGACCGGT CGACACCTT CTTCTGGTC GCACGATGTG TCGTTGGCC

 1401 AACCAACCAAG GCATTCGGCA GCACATCCCG TCTGCTCCAG AAGAGGTCTT AGAACTGAGG GCTGTGACCC TTCCGATCCT GAGGGCTAG TTTTCAGAAC
 TTGGTTGGTC CGTAAGGGGT CGTGTAGGGC AGACGGGTC TTCTCCAGAA TCTTCAGTCC CGACACTGGG AAGGCTAGGA CTCGGCCGATC AAAAGTGTGG

 1501 TCCCTTGCCC CTGCTTCCTT CTGGCTCAGG CTGCTCCTCC TTAGGACTTT GTGGGTCCAG TTTCGCCTTC TGTTCTGATG GTGATTAGGC GCTCACCTCC
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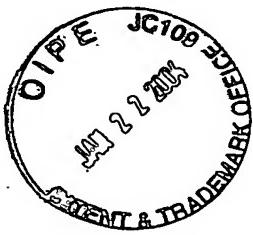
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 1701 AGAAAATGTT TTCCTTGTG TGGAAAGGCTG GTGCTCCAGC CTCCACGTC CTCGAAATGG AGAGATAAAA CCTGCTGGT TCTTGAATGAGC TCTGCCAGGC
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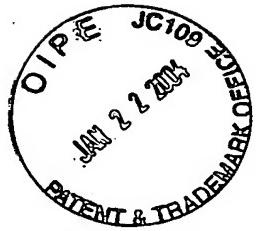
 1801 ATTCCTGAAC ATTTCGGCAT GAAGAGCTAA AGTCTTGGG TCCTGTTAAC TTCCCTCCAAA TGTCCTATTAC TTCCCTCTAGT CCCFTGGGTC ATGATTAAC
 TTAGGACTGT TAAACCCGTA CTTCTCGATTCAGAAACCC AGAACAAATT GAGGATAATG ACAGGGTTT AAGGGATCA GGGAAACCCAG TACTAATTG

 1901 ATTTTGACTT AAAAAAAA AAAAAAAA AAAAAA
 TAAAGACTGAA TTTTTTTTTT TTTTTTTTTT TTTTT

FIG. 1B



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hGFRa3 1 M V R P [N P A P L P P V V L M L L L P P S S P L P L A A G D P L P T E S R L M N S C L Q A R K
mGFRa3 1 - M G L S W S P R P P L M I L L L V L S L W . L P L G A G N S L A T E N R F V N S C T Q A R K K

hGFRa3 51 C Q A D P T C S A A Y H L D S C T S S I S T P L P S E E P S V P A D C L E A A Q Q L R N S S L I G
mGFRa3 48 C E A N P A C K A A Y O H L G S C T S S L S R P L P L E E S A M S A D C L E A A E Q L R N S S L I D

hGFRa3 101 C M C H R R M K N Q V A C L D I Y W T V H R A R S L G N Y E L D V S P Y E D T V T S K P W K M N L S
mGFRa3 98 C R C H R R M K H Q A T C L D I Y W T V H P A R S L G D Y E L D V S P Y E D T V T S K P W K M N L S

hGFRa3 151 K L N M L K P D S D L C L K F A M L C T L N D K C D R L R K A Y G E A C S G P H C Q R H V C L R Q L
mGFRa3 148 K L N M L K P D S D L C L K F A M L C T L H D K C D R L R K A Y G E A C S G I R C Q R H L C L A Q L

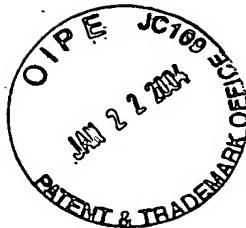
hGFRa3 201 L T F F E K A A E P H A Q G L L L C P C A P N D R G C G E R R N T I A P N C A L P P V A P N C L E
mGFRa3 198 R S F F E K A A E S H A Q G L L L C P C A P E D A G C G E R R N T I A P S C A L P S V T P N C L D

hGFRa3 251 L R R L C F S D P L C R S R L V D F Q T H C H P M D I L G T C A T E Q S R C L R A Y L G L I G T A M
mGFRa3 248 L R S F C R A D D P L C R S R L M D F Q T H C H P M D I L G T C A T E Q S R C L R A Y L G L I G T A M

hGFRa3 301 T P N F V S M V N T S V A L S C T C R G S G N L Q E E C E M L E G F F S H N P C L T E A I A A K M R
mGFRa3 298 T P N F I S K V N T T V A L S C T C R G S G N L Q D E C E Q L E R S F S Q N P C L V E A I A A K M R

hGFRa3 351 F H S Q L F S Q D W P H P T F A V M A H Q N E N P A V R P Q P W V P S L F S C T L P L I L L S L W
mGFRa3 348 F H R Q L F S Q D W A D S T F S V Q Q Q N S N P A L R Q P R L P I L S F S I L P L I L L Q T L W

FIG. 3



48613 1 MVRPLNPRPLPPVVLMLLMLPPSPLPLAAGDPLPTESRLMNSCLQARRK
48614 1 MVRPLNPRPLPPVVLMLLMLPPSPLPLAAGDPLPTESRLMNSCLQARRK

48613 51 CQADPTCSAAHHLDSCSTSISTPLPSEEPSSVPADCLEAAQQLRNSSLIG
48614 51 CQADPTCSAAHHLDSCSTSISTPLPSEEPSSVPADCLEAAQQLRNSSLIG

48613 101 CMCHRRMKNNQVACLDIYWTVHARSLGNYELLDVSPLYEDTVTSKPWKMNL
48614 101 CMCHRRMKNNQVACLDIYWTVHARSL

48613 151 KLNMLKPDSDLCLKFAMLCCTLNDKCDRLRKAYGEACSGPHCQRHVCLRQL
48614 127 DSDLCLKFAMLCCTLNDKCDRLRKAYGEACSGPHCQRHVCLRQL

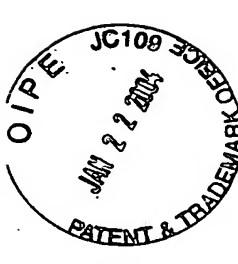
48613 201 TFFEKAAEPPHAQGLLLCPCAPNDRGCGERRNTIAPNCALPPVAPNCL
48614 170 TFFEKAAEPPHAQGLLLCPCAPNDRGCGERRNTIAPNCALPPVAPNCL

48613 251 LRRLCFSDLRCRSRLVDFQTHCHPMDDILGTCATEQSRLRAYLGLIGTAM
48614 220 LRRLCFSDLRCRSRLVDFQTHCHPMDDILGTCATEQSRLRAYLGLIGTAM

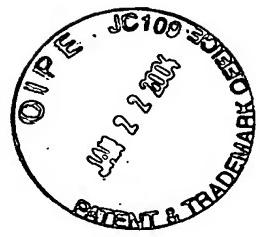
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48614 270 TPNFVSNVNNTSVALSCTCRGSGNLQEECMLEGGFFSSHNPCLTEAIAAKMR

48613 351 FHSQLFSQDWPHPTFAVMMAHQNEENPAVRPQFWVPSLFSCTLPLILLLSLW
48614 320 FHSQLFSQDWPHPTFAVMMAHQNEENPAVRPQFWVPSLFSCTLPLILLLSLW

FIG. 4

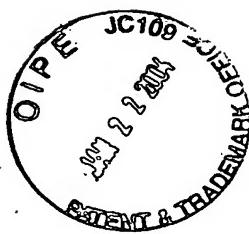


DNA48613.orf	1	ATGGTGGCCCCCTGAAACCCGGGACCGGCCTGCCGCTGGCTAGTCCTGATGTT
GDNFR1.orf	1	- - - - -
GDNFR2.orf	1	- - - - -
DNA48613.orf	51	GCTGCTGGCTGGCCGGTGGCGCTGCCGCTGGCTCCTGGCTGGGG
GDNFR1.orf	6	CCTGGCGACCCGTGATCTGGGGCTTGCGCTGGACTGGCTGGGG
GDNFR2.orf	39	A GACGA GACCC TCCGGCTT GGCAGCCCTT CCGGG
DNA48613.orf	101	T TCCCAGAACAGCTCATGGAAACAGCTGGCTGGGG
GDNFR1.orf	56	CCGAAGTGAGCGGGAGACCCGGCTGGG
GDNFR2.orf	89	A GCTCCACGGCTGGCGCC
DNA48613.orf	151	TGCCAGCTGGCTGATCCCACCTGGCTGGGG
GDNFR1.orf	106	TGCCAGCTGGCAAGGAGGGAGCAAGTACCGGACCTGGCTGGGG
GDNFR2.orf	139	T GTGCCGGCAACTGGCAACTGGCTACCGGACTCTGGCTGGGG
DNA48613.orf	201	CACCTCTAGCATTAAGCACCCACTGGCTGGGG
GDNFR1.orf	156	CGTGGCGGGCAAGGAGCAACTTCAGGCTGGGG
GDNFR2.orf	189	CCTGGCAAGGGCACGGCAACCCATTGGAGGTCTTGCAGGAGGCC
DNA48613.orf	248	CTGGCTGACTGGCTGGAGGCAGCACGCAACTTCAGGAAACAGCTCTGATA
GDNFR1.orf	206	AGGATGAGTGGCCGGCAAGGGGGCTGGGG
GDNFR2.orf	224	ACAAGGGAGTGGCCAGGGGGCTGGGG
DNA48613.orf	298	GGCTGGCAATGTTGCCACCGGGGCCATGAAACCAAGGTTGGCTGGGAT
GDNFR1.orf	256	A ACTGGCCGGTGC AAGGGGGTATGAAAGAAGGAGAAAGAAATGATCIGCTGGGGATT
GDNFR2.orf	274	GACTGGCGCTGCAAGGGGGCATGAAAGGAGGCTGGCAAGTGTCTGCAAGA
DNA48613.orf	348	C TATTGGACCCGTTACCGTGGCTGGCTGGGAT
GDNFR1.orf	306	T TACTGGAGCATGTTACGAGGCTGGCAAGGGGGCTGGGGCTGGGGAT
GDNFR2.orf	324	C TACTGGAGCATCCACCTGGGGCTGGCAAGGGGGCTGGGGAT



DNA48613.orf	398	T C T C C C T A T G A A G	A C A C A G T G A C C A G C
GDNFRa1.orf	356	C C C C A T A T G A A C C A G T T A A C A G G C A G A T T G T C A
GDNFRa2.orf	374	C C T C C C C T A T G A G C C G G T G A C C T C C G G C T T	C T T C A G G C T T
DNA48613.orf	427	A A A C C C T T G G A A A A T G A A T C T C A G C A A A C T G A A C A T G C T C A A A C C A G A C T C	
GDNFRa1.orf	388	G A T A T A T T C C G G G T G G T C C C A T T C A T T C A G T G G A G C C A A T T C C C A A A G G	
GDNFRa2.orf	424	G C T T C A A T C T T Q T C A G G G A C G G G G T G G T C A G G C C A A G A G	
DNA48613.orf	477	A G A C C T C T G C C T C A A G T T T G C C A I T G C T G T G T A C T C A T G C A A G T G T G I G	
GDNFRa1.orf	438	G A A C A A C T G C C T G G A T G C A G C G A A G G C C T G C A A C C T G A C G A C A T T G C A	
GDNFRa2.orf	474	C A A C C A T T G C C T G G A T G C T G C C A A G G C C T G C T G C C A A G G C C T G C A A C C T G A C A C T G C A	
DNA48613.orf	527	A C C G G C T G C G C A A G G G C C T A C G G G G A G G G C G T G C T C C G G C C C C A C T G - - - C	
GDNFRa1.orf	488	A G A A G T A C A G G T C G G G T A C A T C A C C C G T G C A C C A G C C A C C A G C T G T C - - - C	
GDNFRa2.orf	524	A G A A G G C T G C G C T C C T A C A T C C A T C G C A A C C G C C T G C G C A A C C G G A G A T C T C G C C C	
DNA48613.orf	574	C A G C G G C C A A C G I C T G C C T C A G G C A G C T G C T C A C T T T C T T G A G A A G G C C G C	
GDNFRa1.orf	535	A A T G A T G T C T G C A A C C G C C C G A A G T G C C A A G T G C C T C T C G G C A G T T C T T	
GDNFRa2.orf	574	A C C G A G C G C T G C A A C C G C C G C A A G T G C C A A G T G C C C T G C G C A G T T C T T	
DNA48613.orf	624	C G A G - - - C C C C A C G C G C A G G G C C T G C T A C T G T G C C C A T G T G C C C C A	
GDNFRa1.orf	585	T G A C A A G G T C C C G G C C A A A G G C A C G C T C T C G G A A T G C T C T C G T C T G C C	
GDNFRa2.orf	624	C G A C C G G G T G C C C A G G A G T A C A C C T A C C G C A T G C T C T C G T C T G C C	
DNA48613.orf	668	A C G A C C G G G G C T G C G G G A G C C C C A A C T G C	
GDNFRa1.orf	635	G G G A C A T G G C C T G C A C A G G C G G A G G G C C T G C T G C C	
GDNFRa2.orf	674	A A G A C C A G G C G G C T G G C C T G C C C A A C C A T C C T G C C G C A A C C A T C C T G C C	

FIG. 5B



DNA48613.orf	718	GC GCT GCC - - - G C C T G T G G C C C C A A C T G C C T G G C C C T C T G
GDNFR1.orf	685	T C C T A T G A A G A G G G A G C C A A C T G T T G A A T T G C A G G A C T C C T G
GDNFR2.orf	724	T C C T A T G A G A C A A G G A A G C C A A C T G C C T G G C G T G T G
DNA48613.orf	765	C T T C T C G A C C C G C T T T G C A G A T C A C G C C T G G A T T C A G A C C A C T
GDNFR1.orf	735	C A A G A C G A A T T A C A T C T G C A G A T C T C G C C T T G C G G A T T T A C C A A C T
GDNFR2.orf	774	C G G A C T G A C C A C C T G T G G C T G G C C A C T C C A T G C C A A T T
DNA48613.orf	815	G C C A T C C C A T G A C A T C C T A G G A A C T T G I G C A A C A G G C A G T C C C A G A - - -
GDNFR1.orf	785	G C C A G C C A G A G T C A A G G T C T G T C A G C G C T G T C A C C A G C T G C C C T G C G G A C A A T T A C C A G
GDNFR2.orf	824	G T C G A G C C T C C T A C C A G A C G G T C A C C A G C T G C C C T G C G G A C A A T T A C C A G
DNA48613.orf	862	... T G T C T A C G A G C A T A C C T G G G C T G A T T G G G A C T G C C A T G A C C C C C A A
GDNFR1.orf	835	G A C T G C C T C C T C G C C T A C T C G G G C T T A T T G G C A C A G T C A T G A C C C C C A A
GDNFR2.orf	874	G C G T G T C T G G G C T C T T A T G C T G G G C A T G A T G G G T T T G A C T G A C A C C T A A
DNA48613.orf	909	C T T T G T C A G C C A T A G T C A - - - A C A C C A G T G T G C C T T A A G C T G C A C C T
GDNFR1.orf	885	C T A C A T A G A C T C C A G T A - - - G C C T C A G T G T G G C C C A T G G G T T G G T G A C T G A C C T A A
GDNFR2.orf	924	C T A T G T G G A C T C C A G C C C A C T G G C A T C G T G G T G T C C C C T G G T G C A G C I
DNA48613.orf	953	G C C G A G G C A G T T G G C A A C C T G C A G G A G G A G T G T G A A A T G C T G G A A A G G G T T C
GDNFR1.orf	929	G C A G G C A A C A G T T G G G A A C G A C T C T A G A A G A G T G C T T G A A A T T C T T G A A T T T C
GDNFR2.orf	974	G T C G T G G C A G C G G G A A C A T G A G G A G G A G T G T G A A A G T T C C T C A G G G A C
DNA48613.orf	1003	T T C T C C A C A A C C C C G C C T C A C G G A G G C C A T T G C A G C T A A G A T G C G G T T T
GDNFR1.orf	979	T T C A A G G A C A A T A C A T G T C T T A A A A T G C A A T T C A A G C C T T T G G C A A T G G
GDNFR2.orf	1024	T T C A C C G A G A A C C C A T G C C T C C G G A A C G C C A T C C A G G C C T T G G C A A C G G G

FIG. 5C



DNA48613.orf 1053 T C A G G C A A C T C T C C C A G G A C T G G C A C A C C C T A C C T T G C T G T G A
GENFR1.orf 1029 C T C C G A T G T G A C C G T G T G G C A G C C A G C C T T C C A G T A C A G A C C A C T G
GENFR2.orf 1074 C A C G G A C G T G A A C C G T G T C C C C A A A A G G C C C C T C G T T C C A G G C A C C C A G G

DNA48613.orf 1103 T G G C A C A C C A G A A T G A A A A C C C T G C T G T G A G G C C A C A G G C C T G G G T G C C C
GENFR1.orf 1079 C C A C T A C C A C C A C T G C C C T C C G G T T A A G A A C A A A C C C C T G G G C A G C A
GENFR2.orf 1124 C C C C T C G G G T G G A G A A G A C G C C T T C I T G C C A G A T G A C C T C A G T G A C A G T

DNA48613.orf 1153 T C T C T T C C T G C A C G C T T C C C T T G A T T C G C I C C T G A G C C T A T G G T A
GENFR1.orf 1129 G G G T C T G A G A A T G A A A T T C C A C T C A T G T T G C C A C C G T G T G C A A A T T T
GENFR2.orf 1174 A C C A G C T T G G G A C C A G T G T C A T C A C C A C C T G C A C G T C T G T C C A G G A G C A

DNA48613.orf 1203 G
GENFR1.orf 1179 A C A G G C A C A G A A G G C T G A A A T C C C A A C C A A C T C C C A A G G C A A T A C A C A C C T C T G T A
GENFR2.orf 1224 G G G G T G A A G G C C A A C C A A C T C C C A A G G C T G A G C A T G T G C C T T C A C A G A G G C

GENFR1.orf 1229 T T T C C A A T G G T A A T T A T G A A A A A G A A G G T C T G G T G C T T C C A G G C C A C A T A
GENFR2.orf 1274 T C A C G A C A A A T C A T C A T C A T C C C A G G G A G T A A C A A G G T G A T C A A A C C T A A C T C A

GENFR1.orf 1279 A C C A C A A A A T C C A A T G G C T G C T C C A A G G C T G T G G T C T G A G C C C A C C T G C T
GENFR2.orf 1324 G G C C C A G C A G A C C G T C G G C T G C C T G C C T G C T G C T G C C T G T C T G C C T

GENFR1.orf 1329 G G T C C T G T G G T A A C C G C T C T G I C C A C C C T A T T A C T G A A A C A T
GENFR2.orf 1374 G A T G C T G A A A C A G G C C T T G T A G

FIG. 5D

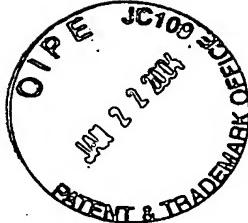


FIG. 6

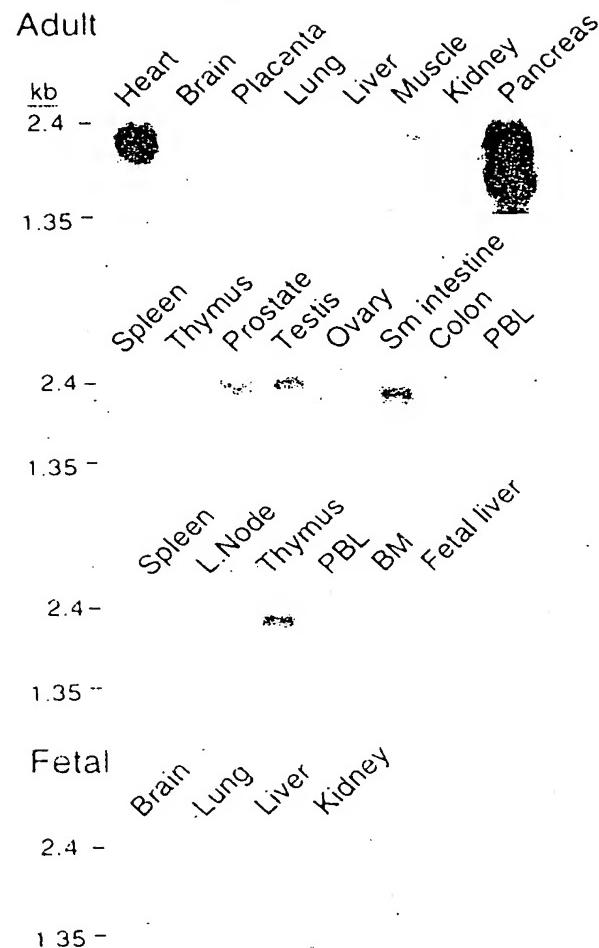
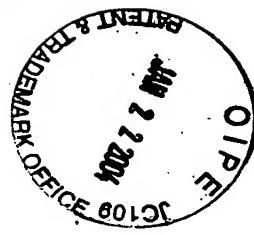
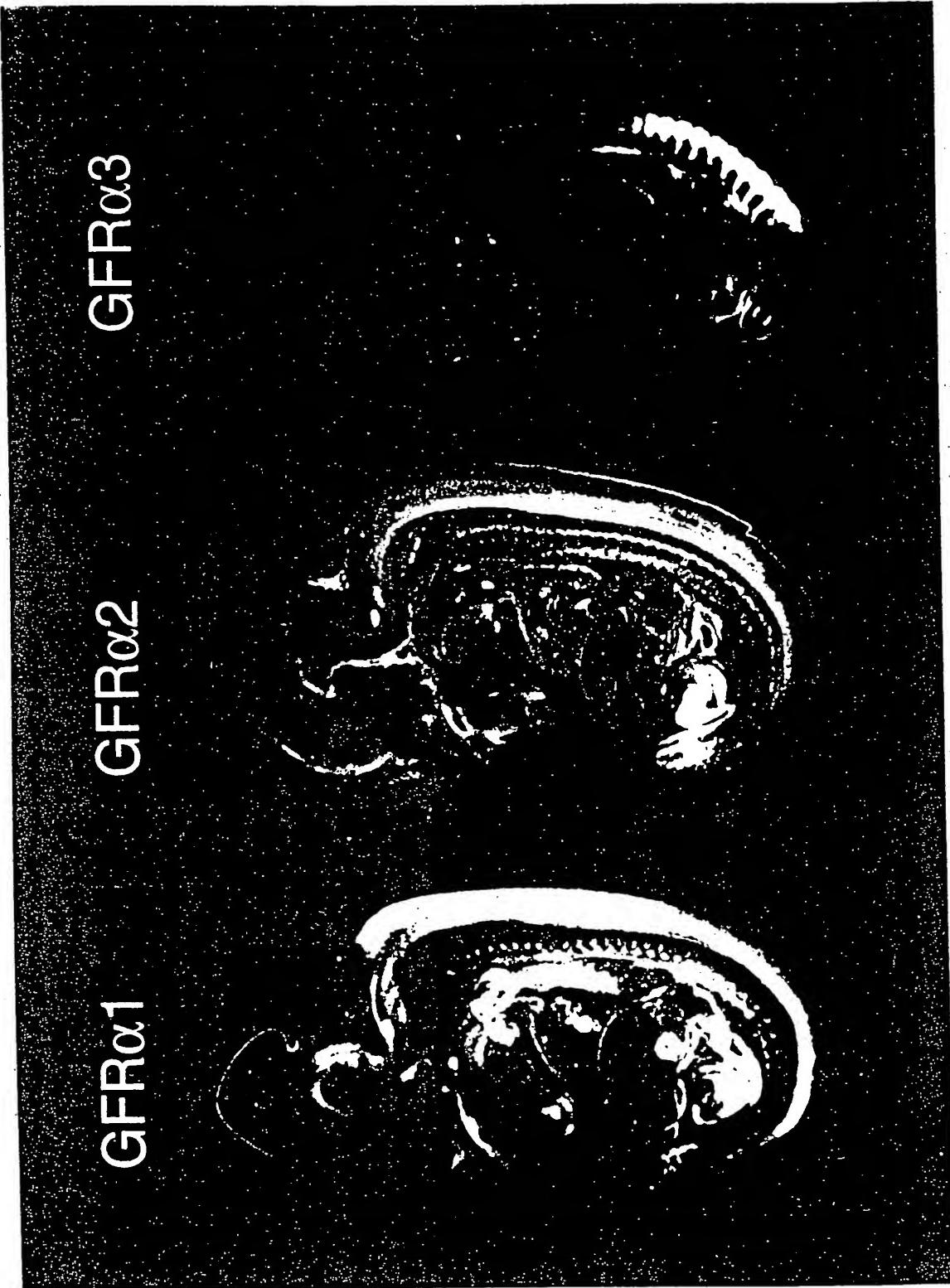
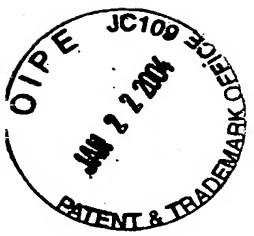


FIG. 7

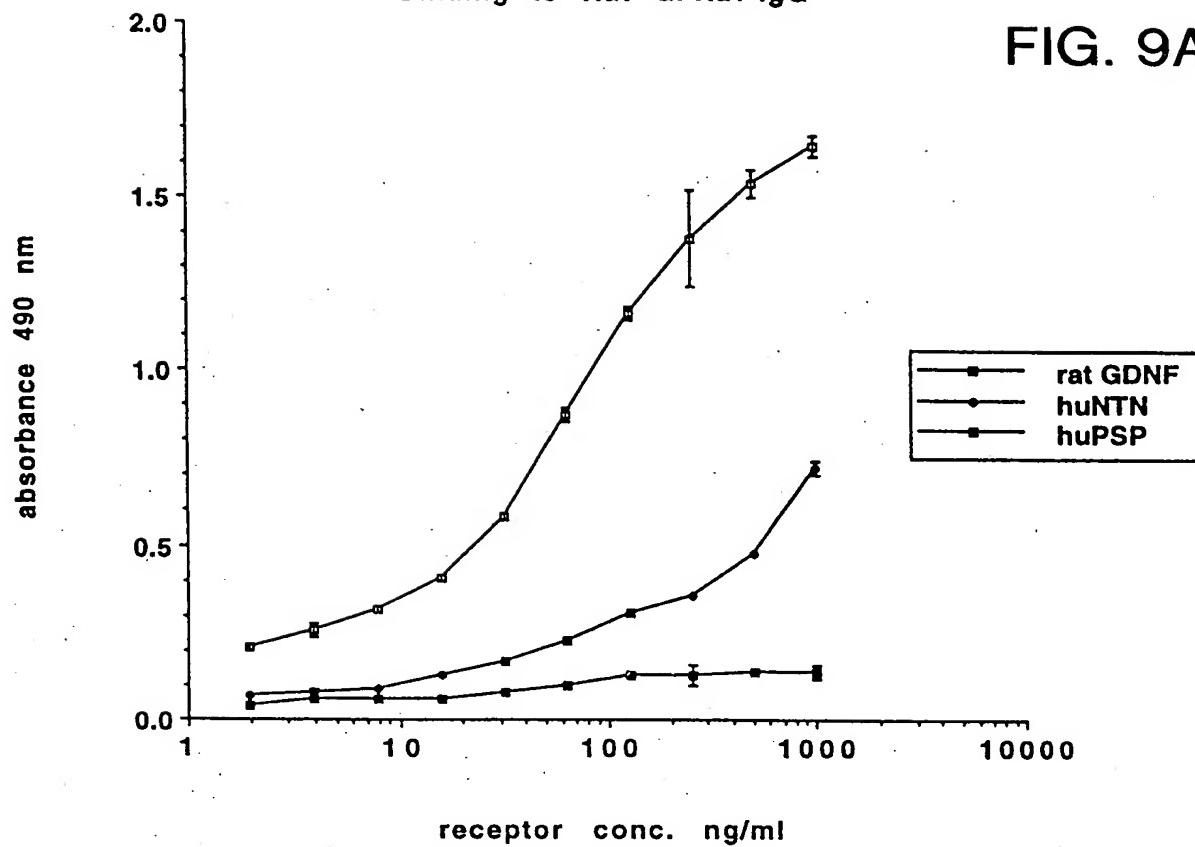
FIG. 8





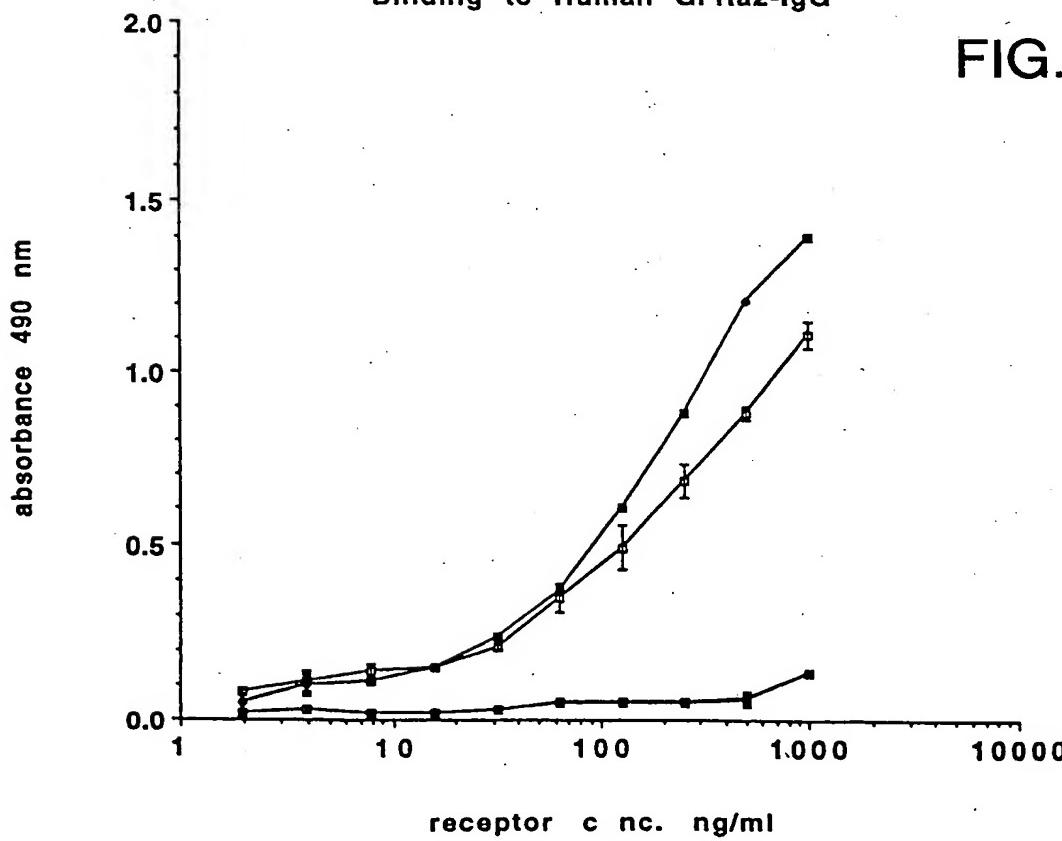
Binding to Rat GFR α 1-IgG

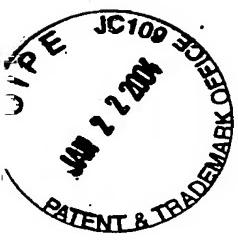
FIG. 9A



Binding to Human GFR α 2-IgG

FIG. 9B





Binding to Human GFR α 3-IgG

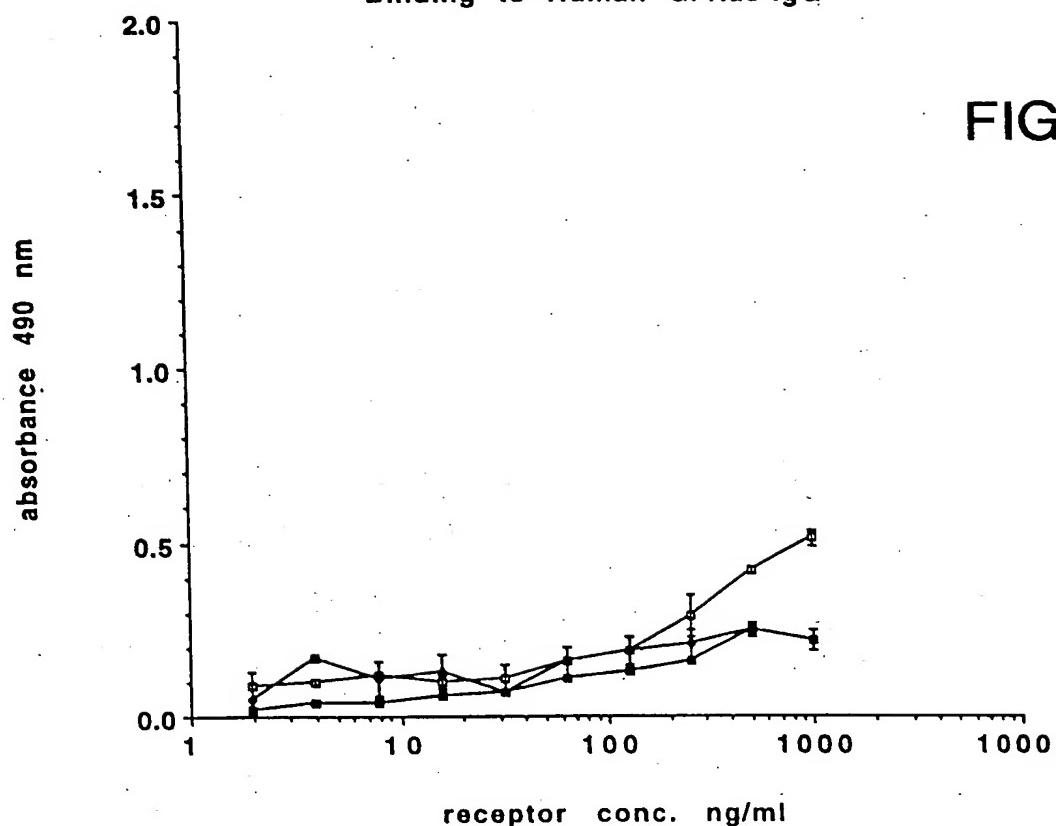


FIG. 9C

Proliferation of Ba/F3-GFR α 2-mpl cells in response to NTN and GDNF

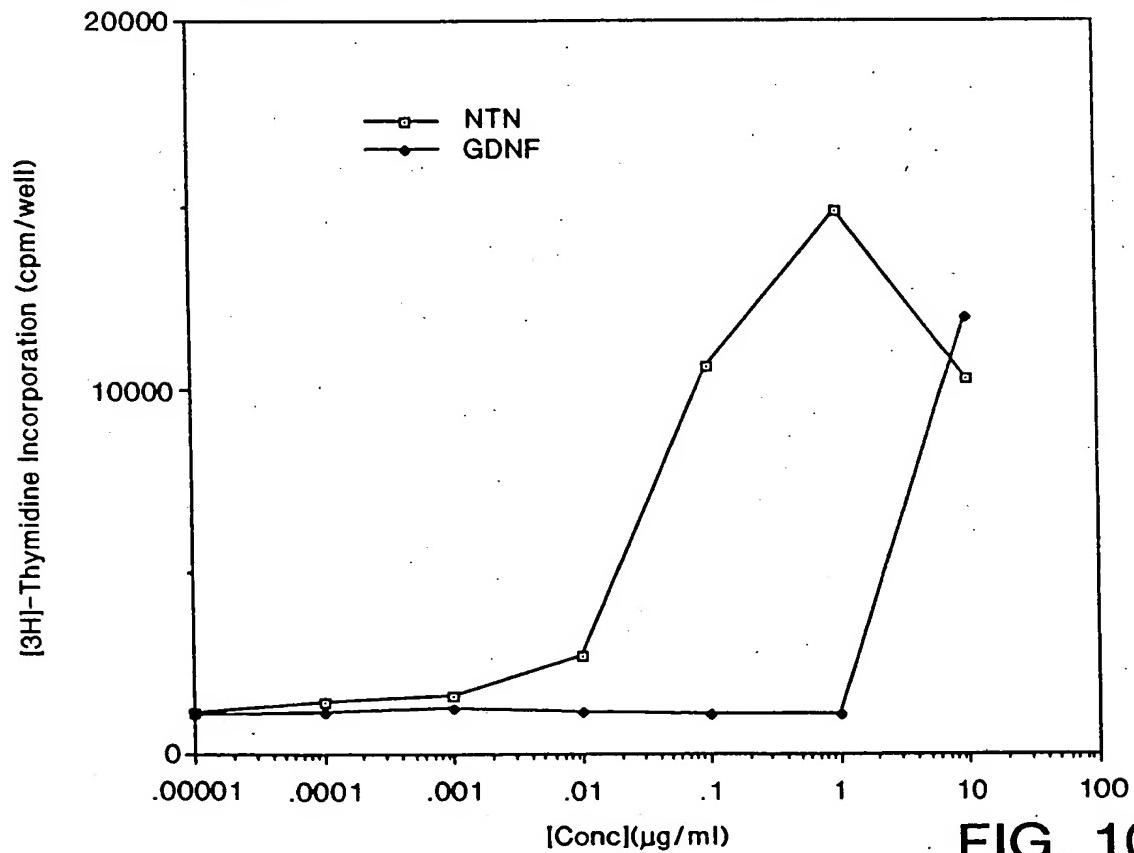


FIG. 10

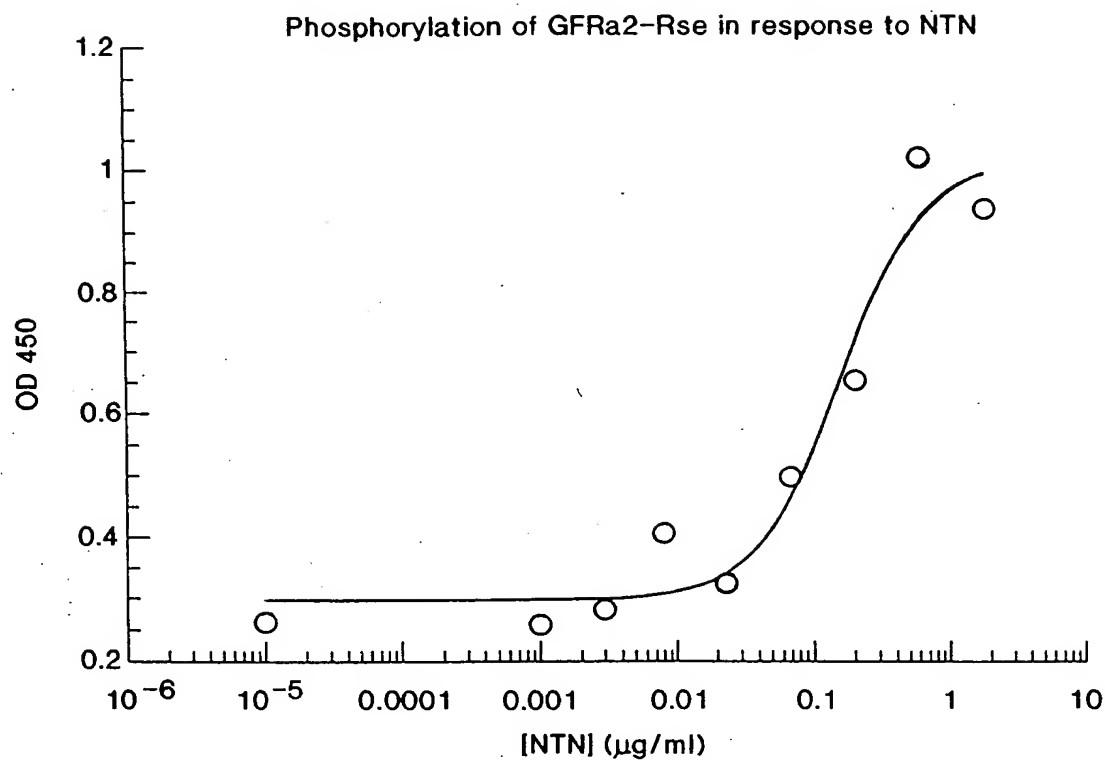
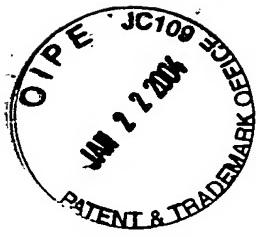


FIG. 11

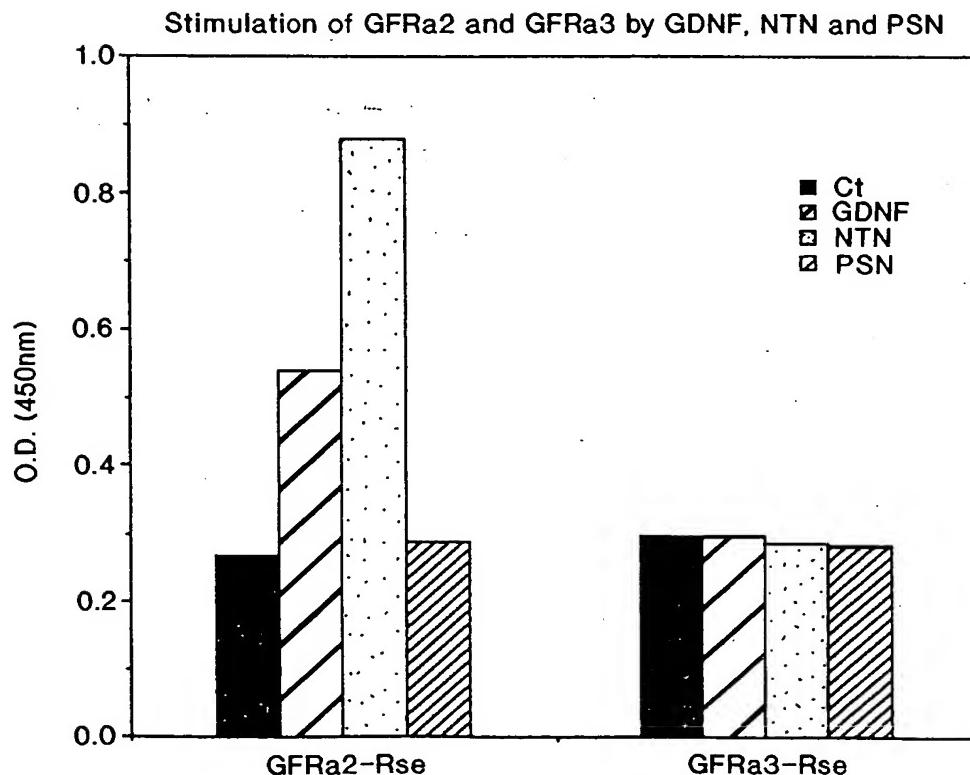
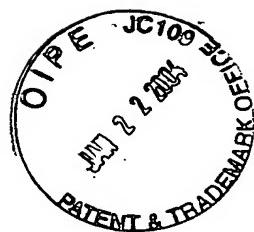


FIG. 12



Agonistic activity of anti gd mAbs in gd-alpha2-rse KIR4

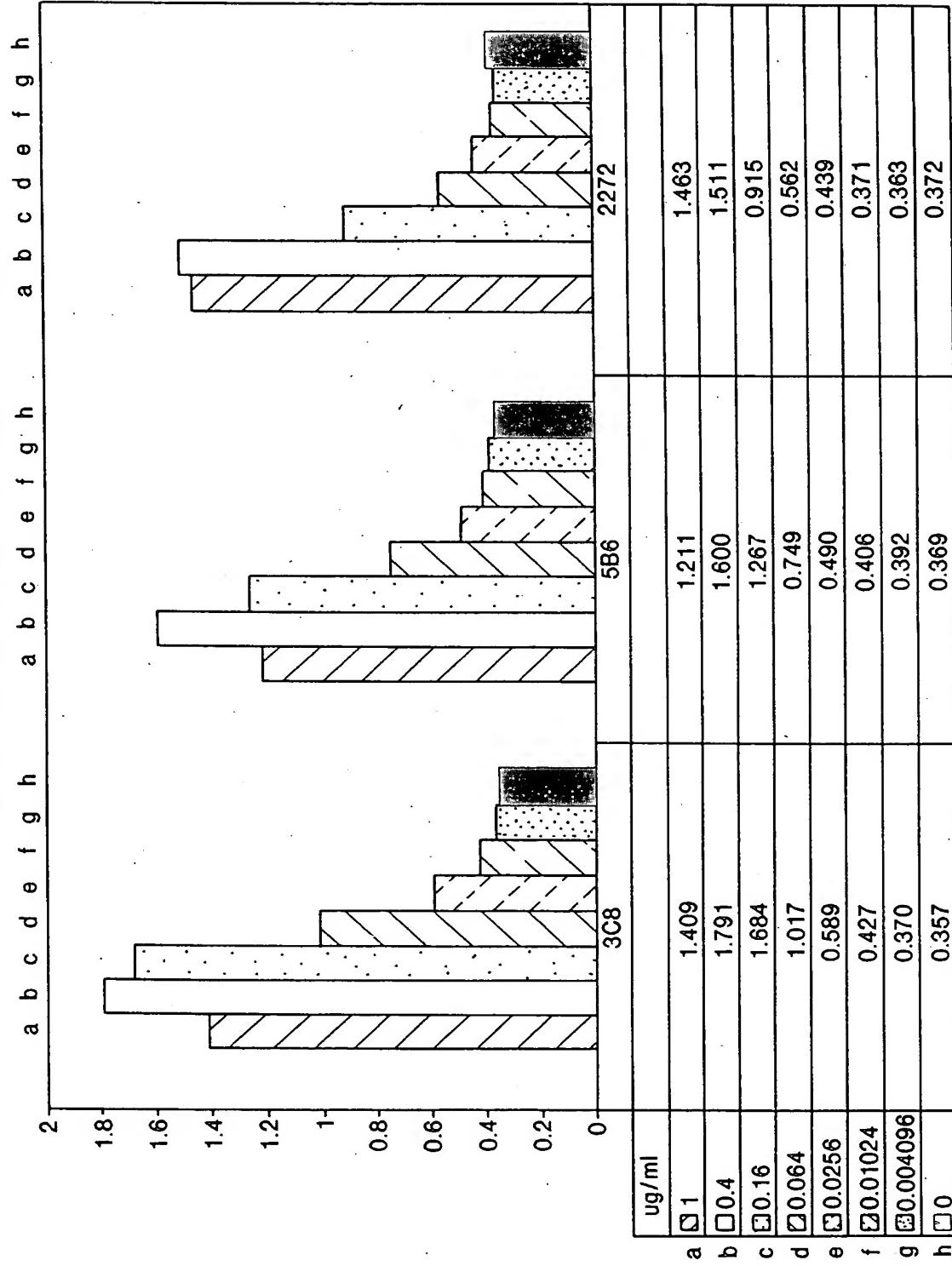


FIG. 13